

Claims

- [c1] 1. A liquid crystal display, comprising:
two substrates, being spaced apart in parallel;
an enclosed wall structure, provided in between said two substrates, wherein the enclosed wall structure and said two substrates form a first enclosed space;
a sealant, formed outside said enclosed wall structure between said two substrates, wherein said sealant and said two substrates form a second enclosed space;
a liquid crystal layer, formed in said first enclosed space between said two substrates; and
at least a thin film transistor, being formed in said first enclosed space on one of said two substrates.
- [c2] 2. The liquid crystal display as recited in claim 1, wherein said enclosed wall structure comprises a conductive wall.
- [c3] 3. The liquid crystal display as recited in claim 1, wherein said conductive wall serves to conduct said two substrates.
- [c4] 4. The liquid crystal display as recited in claim 1, wherein a plurality of conductive walls for conducting said two substrates are provided on said substrate that has said

thing film transistors.

- [c5] 5. The liquid crystal display as recited in claim 1, wherein said enclosed wall structure comprises an insulating wall.
- [c6] 6. The liquid crystal display as recited in claim 1, wherein said enclosed wall and said sealant are bonded.
- [c7] 7. The liquid crystal display as recited in claim 1, wherein said enclosed wall and said sealant are spaced apart.
- [c8] 8. The liquid crystal display as recited in claim 1, wherein said sealant comprises a light hardening adhesive.
- [c9] 9. A method of manufacturing a liquid crystal display, which comprises:
 - providing a first substrate;
 - forming a first conductive layer on said first substrate;
 - forming a first insulating layer on said first conductive layer;
 - forming a second conductive layer on said first insulating layer,wherein between forming said first conductive layer on said first substrate and forming said second conductive layer on said first insulating layer and after forming said second conductive layer on said first insulating layer further comprises forming an enclosed wall on periphery of surface of said first substrate;

providing a second substrate;
forming a sealant on either a surface of said first substrate or a surface of said second substrate, wherein said sealant is located relatively outside said enclosed wall;
bonding said first substrate and said second substrate together; and
irradiating said sealant;

[c10] 10. The method of manufacturing a liquid crystal display as recited in claim 9, further comprising a plurality of conductive walls that are formed on said first substrate so as to conduct to said second substrate.

[c11] 11. The method of manufacturing a liquid crystal display as recited in claim 9, wherein the step of forming said enclosed wall on periphery of said first substrate surface further comprise:
controlling a first mask to at least cover said conductive layers and said insulating layers that are formed;
controlling a second mask;
superimposing said first mask and said second mask on said first substrate;
continuing deposition; and
removing said first mask and said second mask in order to form said enclosed wall on surface periphery of said first substrate.

- [c12] 12. The method of manufacturing a liquid crystal display as recited in claim 11, wherein said first mask configures patterns so as to form said plurality of conductive walls on said first substrate to conduct to said second substrate.
- [c13] 13. The method of manufacturing a liquid crystal display as recited in claim 11, wherein a third mask that is patterned is further controlled to perform conductive layer deposition in order to form said plurality of conductive walls on said first substrate so as to conduct to said second substrate.
- [c14] 14. The method of manufacturing a liquid crystal display as recited in claim 9, wherein the step of forming said enclosed wall on surface periphery of said first substrate is performed after the step of forming said first conductive layer on said first substrate and before the step of forming said first insulating layer on said first conductive layer, and said enclosed wall that comprises a conductive wall which forms an enclosed space when bonded to said first substrate and said second substrate as well as conducts to said second substrate upon contact.
- [c15] 15. The method of manufacturing a liquid crystal display as recited in claim 9, wherein the step of forming said enclosed wall on surface periphery of said first substrate

is performed after the step of forming said first insulating layer on said first conductive layer and before the step of forming said second conductive layer on said first insulating layer, and said enclosed wall comprises an insulating wall which forms an enclosed space when bonded to said first substrate and said second substrate.

[c16] 16. The method of manufacturing a liquid crystal display as recited in claim 9, wherein the step of forming said enclosed wall on surface periphery of said first substrate is performed after the step of forming said second conductive layer on said first insulating layer, and said enclosed wall comprises a conductive wall which forms an enclosed space when bonded to said first substrate and said second substrate as well as conducts to said second substrate upon contact.

[c17] 17. The method of manufacturing a liquid crystal display as recited in claim 9, further comprising a step of forming a second insulating layer on said second conductive layer and forming said enclosed wall on surface periphery of said first substrate, wherein said step is performed after the step of forming said first conductive layer on said first substrate and before or after the step of forming said second insulating layer on said second conductive layer.

[c18] 18. The method of manufacturing a liquid crystal display as recited in claim 17, wherein the step of forming the enclosed wall on surface periphery of the first substrate is performed after the step of forming said second insulating layer on said second conductive layer, and said enclosed wall comprises an insulating wall which forms an enclosed space when bonded to said first substrate and said second substrate.

[c19] 19. The method of manufacturing a liquid crystal display as recited in claim 17, further comprising a step of forming a third conductive layer on said second insulating layer and forming said enclosed wall on surface periphery of said first substrate, wherein said step is performed after the step of forming said first conductive layer on said first substrate and before or after the step of forming said third conductive layer on said second insulating layer.

[c20] 20. The method of manufacturing a liquid crystal display as recited in claim 19, wherein the step of forming said enclosed wall on surface periphery of said first substrate is performed after the step of forming said third conductive layer on said second insulating layer, and said enclosed wall comprises a conductive wall which forms an enclosed space when bonded to said first substrate and said second substrate as well as conducts to said second

substrates upon contact.

[c21] 21.. A method of manufacturing a liquid crystal display , which comprises:
providing a first substrate;
forming a first conductive layer on said first substrate;
forming a first insulating layer on said first conductive layer;
forming a second conductive layer on said first insulating layer,
wherein between forming said first conductive layer on said first substrate and forming said second conductive layer on said first insulating layer as well as after forming said second conductive layer on said first insulating layer, further comprises forming a plurality of conductive walls on surface of said first substrate;
providing a second substrate;
forming a sealant on either surface of said first substrate or surface of said second substrate;
forming a liquid crystal layer on one of said first substrate and second substrate within said sealant;
bonding said first substrate and said second substrate together; and
irradiating said sealant.

[c22] 22. The method of manufacturing a liquid crystal display as recited in claim 21, wherein forming said conductive

walls on said first substrate further comprises:
controlling a mask to at least cover said conductive layers and said insulating layers that are formed;
continuing deposition; and
removing the mask, so as to form said conductive walls on said first substrate.

[c23] 23. The method of manufacturing a liquid crystal display as recited in claim 21, wherein the step of forming said conductive walls on said first substrate is performed after the step of forming said first conductive layer on said first substrate and before the step of forming said first insulating layer on said first conductive layer as well as conducts to said second substrate upon contact.

[c24] 24. The method of manufacturing a liquid crystal display as recited in claim 21, wherein the step of forming said conducting walls on said first substrate is performed after the step of forming said second conductive layer on said first insulating layer as well as conducts to said second substrate upon contact.

[c25] 25. The method of manufacturing a liquid crystal display as recited in claim 21, further comprising the step of forming a second insulating layer on said second conductive layer.

[c26] 26. The method of manufacturing a liquid crystal display as recited in claim 25, further comprising a step of forming a third conductive layer on said second insulating layer and forming said enclosed wall on surface periphery of said first substrate, wherein said step is performed after the step of forming said first conductive layer on said first substrate and before or after the step of forming said third conductive layer on said second insulating layer.

[c27] 27. The method of manufacturing a liquid crystal display as recited in claim 26, wherein the step of forming said conductive walls on said first substrate is performed after the step of forming said third conductive layer and said second insulating layer as well as conducts to said second substrate upon contact.